

CITES World

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CITES and the advent of electronic permitting

The advent of new information and communication technologies, commonly referred to as ICTs, is impacting on the evolution of CITES in a variety of ways. The increasing dependence of Parties on the availability of timely trade data to assist in decision making and policy development should not be underestimated. For example, one of the inevitable drawbacks regarding the usefulness of the CITES Trade Database is the interval between reporting of data and its public availability.

Other areas where Parties have turned to new ICTs to gain efficiency are in the fight against criminal activities and illegal wildlife trade; the prompt execution of administrative procedures, particularly with regard to wildlife trade of economic significance; and the alignment of CITES administrative procedures with new developments in electronic commerce and Customs controls and requirements.

It is within this context that, through the adoption of Decisions 14.55 to 14.57, Parties have recognized the need for harmonizing projects related to electronic CITES permits and certificates. Parties also recognize

the need for harmonization with initiatives related to electronic commerce and Customs, especially those initiatives related to or promoted by the Single Window environment, the World Customs Organization (WCO) and the United Nations Centre for Trade Facilitation and Electronic Business (UN/CEFACT).

This issue of CITES World offers Parties a general introduction to many of these subjects. The first article describes efforts by the Management Authorities of Switzerland and the United Kingdom to implement a joint pilot project to exchange electronic CITES permit data. Many of the lessons learned in this project are being used by the CITES Standing Committee's Working Group on Information Technologies and Electronic Systems and the Secretariat in the development of the upcoming CITES toolkit on electronic permitting.

In the second article, the Management Authority of Thailand presents an overview of its CITES electronic permitting system. Parties will be interested in learning how the Thai Management Authority succeeded in linking its project with relevant initiatives such as the Single Window environment, the WCO data model and recommendations from UN/CEFACT. Indeed, the Thai e-permitting project clearly exemplifies efforts by Parties to implement a CITES e-permitting system that facilitates electronic commerce and develops e-government solutions.

A project funded by the European Commission to facilitate the expedition, electronic exchange or verification of CITES-Permit data among Management Authorities by the UNEP World Conservation Monitoring Centre is the subject of the third article. This mechanism will facilitate the electronic exchange or verification of CITES-permit data among Management Authorities.

The fourth article by consultants assisting the Secretariat in developing the CITES toolkit on electronic permitting describes current developments influencing implementation of systems to facilitate electronic commerce. The article also identifies the many different global initiatives which have impacted directly on the development of the CITES toolkit on electronic permitting.

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In the fifth article, the International Air Transport Association (IATA) presents its project to implement an electronic freight project (commonly referred to as “IATA e-freight”). The project is replacing paper documents with electronic messages, thereby reducing costs, improving transit times, ensuring data accuracy and increasing the competitiveness of airfreight. The CITES Secretariat has consulted closely with IATA to learn from its experiences and to take account of e-freight recommendations in the CITES project.

The final article depicts the work of UN/CEFACT to promote the adoption of protocols and standards to facilitate electronic commerce. Indeed, UN/CEFACT aims to develop and promote simple, transparent and effective processes for global commerce (including related government-to-business and government-to-government processes).

This issue of CITES World, therefore, provides Parties with an overview of the many separate but inextricably linked issues related to the development of national electronic permitting systems. Perhaps the most important lesson learned from this project is that CITES must link more effectively its efforts to regulate international trade in CITES-listed species with international standards and initiatives related to electronic commerce. This will allow CITES to continue its role as the primary global instrument ensuring that international trade in specimens of wild animals and plants does not threaten their survival.

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Electronic permitting - a view from the Swiss and United Kingdom Management Authorities

The Swiss and United Kingdom CITES Management Authorities are fortunate enough to be in a position to engage in a proposed bilateral trial using electronic means to exchange CITES permits. In some ways, the position between Switzerland and the United Kingdom was ideal for such purposes as there are several factors which eased the task facing both countries:

- √ There is a reasonable amount of trade between the two Parties;
- √ The trade mostly consists of luxury leather goods (watch straps, etc.);
- √ The Swiss Management Authority is already using e-permitting and has all the Internet structure set up and working, which has allowed the United Kingdom to learn quickly from it and follow its lead;
- √ Both countries and the CITES Secretariat were easily accessible, therefore joint meetings to move the project forward were possible within reasonable costs; and
- √ The United Kingdom is in the fortunate position of being backed both financially and technically by the corporate structure of Animal Health (the agency which hosts the licensing element of the United Kingdom CITES Management Authority).

This made the task easier but there were, and still are, challenges to overcome. The project started when the CITES Secretariat explained its ideas for such a project to the Swiss and United Kingdom Management Authorities at the 57th meeting of the Standing Committee in July 2008. The project moved forward when the United Kingdom, the CITES Secretariat, and Italy (Chair of the Working Group on Information Technologies and Electronic Systems, dealing with electronic permits) attended a meeting in Bern hosted by the Swiss Management Authority. Since that date, the United Kingdom has also hosted a meeting in Bristol and following innumerable e-mails, project documents and telephone calls we now have a firm outline of what we wish to achieve.

Our objective is to pilot e-permitting for CITES permits and certificates. This will allow the CITES Secretariat to build up a set of standards and tools which will allow Parties to follow the pilot with bilateral projects of their own that follow a common set of rules and security standards, and appropriate exchange file format. This last point is extremely important because other international protocols governing the exchange of electronic information relating to international trade have to be satisfied and concepts such as the International Trade Single Window and the World Customs Organization data model require common standards for all trade to be adopted if they are to achieve the required benefits.

Further technical support for the United Kingdom element of the project has been given by the UNEP World Conservation Monitoring Centre (UNEP-WCMC) and their enthusiastic support has also been a key component in our contribution.

The United Kingdom and Switzerland hope that, as a result of the trial, they will have set up procedures that will allow:

- √ the production of CITES import/export/re-export permits and certificates allowing the movement of goods under CITES permit/certificates to pass between the Swiss and United Kingdom Management Authorities in an electronic format; and
- √ the “return” information recording trade which actually took place to be transferred from border control authorities to Management Authorities in electronic format.

The trial will also result in:

- √ the establishment of standards, formats and security standards which will allow the CITES Secretariat to draft a series of best practices, tools and recommendations for presentation at the 15th meeting of the Conference of the Parties (CoP15) as a draft resolution;
- √ the submission of a draft version of Resolution Conf. 12.3 (Rev. CoP14);
- √ contacts made with other relevant international organizations to ensure compatible e-standards for CITES trade; and
- √ the provision of oversight and conclusions drawn from this project to the CITES Secretariat.

The benefits to be drawn from this trial include:

- √ the facilitation of faster and more efficient trade in CITES species;
- √ CITES permitting systems that are compatible with the World Customs Organization’s vision of a paperless trade environment;
- √ providing a CITES “lead” to demonstrate to other Parties that electronic transfer of CITES trade data is both possible and desirable;

- √ Providing communications that are of a better quality and more secure between government agencies of the trading partners;
- √ Developing methods to enable Parties to deliver yearly reports on a real-time basis; and
- √ reducing the opportunities for paper-based fraudulent trade.

We look forward to discussing the concept, the progress and the pitfalls with our CITES colleagues at the 58th meeting of the Standing Committee in July 2009, and at the 15th meeting of the Conference of the Parties in early 2010.

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The development and implementation of electronic permitting systems in Thailand

The Conference of the Parties (CoP), at its 13th meeting (Bangkok, 2004), directed the Standing Committee to establish a Working Group to explore further the use of information technology or electronic systems to enhance the implementation of CITES (Decision 13.69). The mandate of the Working Group was extended at CoP14 (Decision 14.55) to collaborate with the Secretariat in drafting guidelines on the use of common information exchange formats, protocols and standards and electronic signatures, among other tasks. The CITES Management Authority of Thailand is a member of the Working Group and has assisted the Secretariat with the development of the CITES e-permit toolkit.

Thailand is an exporting country, and it realizes that trade logistics are a key factor contributing to its national competitiveness in the global marketplace. Thailand has a vision to become a world class logistic hub for the Indochina region, and enhancement of trade facilitation is one of major items in the strategic agenda to achieve this goal.

Within this context, the Single-Window paperless, or e-Logistic initiative, is a flagship programme under this strategic agenda. Moreover, the project to develop CITES electronic permits is perceived to be an component of the Single-Window. Basically, a Single Window may be defined as a platform that connects information systems to enable paperless trade.

At the present time, completion of procedures to export goods from Thailand requires several days. To deal with this problem, many government agencies and some companies in the private sector have developed databases to facilitate trade and transfer data electronically. However, due to the large variety of database models and platforms, multiple entry of data when completing export procedures is still required and this hinders efforts to reduce the number of days required to process trade documents.

To deal with the above problem, the Ministry of Information and Communication Technology (MICT) and other government agencies relating to import and export are speeding up the development of their back-end information and technology systems along with the development of their cross-agency data and information interoperability. Such information and data interoperability will be based on ebXML protocols (Electronic Business using eXtensible Markup Language — a modular suite of specifications that enables companies to conduct business over the Internet) with digital signatures. This will allow for a seamless connection and data integration with the National Single Window (NSW) exchange hub hosted by the Royal Thai Customs Department.

The Ministry of Information and Communication Technology allocated a budget to the government agencies involved in import and export procedures to develop their back-end information and technology applications and systems. These agencies include the three CITES Management Authorities of Thailand: the Department of Agriculture, the Department of Fisheries and the Department of Natural Resources, which are responsible for exports and imports of CITES-listed flora, aquatic animals and terrestrial animals, respectively.

The harmonization of the different data elements present in CITES import/export permits and certificates was based on the United Nations electronic Trade Documents (UNeDocs) Data Modelling process. The UNeDocs is a project of the United Nations that aims to become the world electronic trade document standard under UN auspices. UNedocs is a powerful migration tool from paper to paperless environment.

Below are the steps initiated by Thailand to develop CITES electronic permits that are harmonized with developments under the Single Window:

1. Analysing the present work process to identify a document in the flow using UN/CEFAT's Modelling Methodology and Unified Modelling Language (UML);
2. Adjusting the paper document to comply with the standard of United Nation Layout key (UNLK);
3. Simplifying and harmonizing data element to standardized dataset based on the World Customs Organization Data Model (Customs data requirements), UneDocs (trade and transport data requirements) and Data requirement from the Asia-Pacific region;
4. Transforming data to a Data Model and an XML Schema by a programmer;
5. Creating a prototype model.

Currently, the Management Authorities for aquatic animals and flora are considering the prototype model and its underlying workflow, while the Management Authority for terrestrial animals is reviewing the process to issue e-permits. This work is almost completed with the step of exchanging data with Customs being the last to be completed.

The Management Authority for flora plans to complete this project by September 2009. We hope that the advent of an electronic CITES permit system will be advantageous for stakeholders such as exporters and importers with regard to time reduction and cost savings. Finally, we also believe that this project will offer CITES officers the benefit of more efficient administering, tracing and safeguarding of CITES data.

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Expediting electronic exchange of permit data among CITES Authorities – a pilot project

Background

Parties to CITES are requested by Resolution Conf. 11.17 (Rev. CoP14) to submit their annual reports, by 31 October following the year for which they are due. This deadline provides sufficient time for the preparation of national reports notwithstanding the type of information-management mechanism used by Management Authorities.

Timely verification of permit data, however, is often necessary for Management Authorities to discharge their duties effectively and ensure that any inadequate use of permits is addressed promptly. Therefore, the length of time that may elapse between the issuance of a permit and the time in which the trade is reported (up to 22 months) imposes practical difficulties to Management Authorities that require information from permits issued by other Parties. Currently, permit data not yet published in annual reports can only be obtained bilaterally between Parties. This can lead to a multiplication of efforts and administrative costs.

CITES Resolution Conf. 11.17 (Rev. CoP14) also urges every Party to consider whether the preparation of its reports could be computerized and whether the submission of such reports could be made in electronic format. However, the electronic systems (and, to an extent, the standards) used by the Parties to manage information can be quite varied. This creates practical difficulties for the exchange of data among Management Authorities.

Thus, with financial support from the European Commission and the United Kingdom, UNEP-WCMC is currently developing a mechanism to facilitate the expedition, electronic exchange or verification of CITES-permit data among Management Authorities. The mechanism is being developed so that participating Management Authorities can exchange data regardless of the type of information-management system they use. This mechanism is being developed in collaboration with the e-permit CITES working group and the CITES Secretariat, pursuant to Decision 14.57. This Working Group is developing standards for data electronic exchange for consideration at the

15th meeting of the Conference of the Parties for and adoption by the CITES community.

General features

- The system is designed to operate over the Internet. It will be based on standards being developed by the CITES Electronic Permit Working Group and the CITES Secretariat. These standards will allow Parties to access permit information automatically from the national information systems and will facilitate its exchange among Parties. Data will be pulled regularly from the databases of those Management Authorities and stored in a database at UNEP-WCMC.
- Parties not yet able to use Web services would only be required to:
 - a) have an email account and check it at least once a day; and
 - b) to have access to the Internet and the World Wide Web.
- Participating Authorities will be required to register in the system so that their electronic identity can be confirmed.
- The data to be exchanged among authorities will only comprise the information submitted in annual reports to CITES.

Permit-data exchange or verification:

The enquiring authority will submit a query through a secure webpage available through UNEP-WCMC's website, using the information elements known by the enquiring authority about that permit (e.g. permit number, issuing Party, species name, etc.).

The system will then first check whether the data exist already in the central database at UNEP-WCMC (the data in permits issued by Parties able to use Web services should already be available in the system). If the details of that permit are not available in the central database, an automatic email message will be sent to the permit-issuing authority requesting it either to confirm the details known by the enquiring authority or to provide any missing details.

If all that is required from the permit-issuing authority is to confirm that the permit details are valid, the permit-issuing authority will be able to do so simply by clicking on a hyperlink which will be available in

the automatic email. This will dispatch an automatic response back to the central database at UNEP-WCMC and to the enquiring authority, confirming the data.

If, instead, any additional data are needed, these may be entered in a standard form available through a secure interface and sent back to the central system and to the enquiring authority.

If no response is received from the permit-issuing authority, the system will send reminders after a specified deadline, to ensure that exchange remains expeditious.

Once a response is received from the permit-issuing authority, the data will be stored in the central database and will be available for consultation by others, thus avoiding multiple interactions with the issuing authority. If so desired, the issuing authority may be notified by email on each and every instance in which their permit data are queried by other users.

Thus, the project will enable three modes (or routes) of data exchange and permit-data verification among Parties to CITES, namely:

A) An automated route (figure 1), by which Management Authorities with systems capable of automatic data exchange (e.g. via XML)

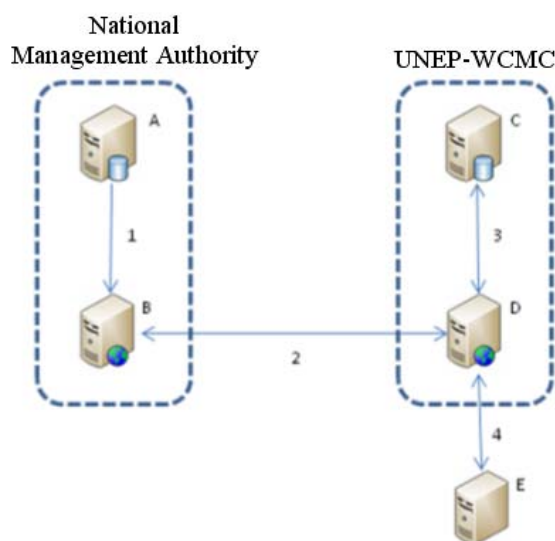
establish a protocol with UNEP-WCMC to either ‘push’ their data into the central CITES Trade database, or have their data ‘pulled’ from their system by UNEP-WCMC, at regular intervals. Alternatively, if so desired by the issuing authority, as a variation to this route, data can instead be exchanged on a permit-by-permit basis, i.e. when specifically requested by a user, using the same automated protocol.

B) A standardized email-based route (figure 2), through which Management Authorities unable at present to exchange data automatically, can validate permit data through a ‘single click’ interface, on a case-by-case basis; and

C) Data provision by batch (figure 3), through which an officer of the Management Authority provides permit data in regular batches (via email, or by uploading the data file through a secure Internet interface), which are then used to serve other users of the system (thus avoiding the case-by-case validation approach in route B).

This third route is therefore intended to provide the means by which a National Authority currently unable to exchange data automatically (i.e. not able to opt for route A), may instead use UNEP-WCMC’s server infrastructure to attain the same end.

Figure 1: Route A – Automated data provision



Key:

- A: National permit-management database
- B: Internet server (National Authority)
- C: CITES Trade Database
- D: Server (UNEP-WCMC)
- E: Authorized third user

Processes:

- 1: National Authority copies its own permit data from their permit database into its own Internet server.
- 2: National Internet server ‘pushes’ data onto UNEP-WCMC’s server (or UNEP-WCMC ‘pulls’ data if so preferred) at regular intervals (to ensure that dataset remains up to date).
- 3: UNEP-WCMC maintains copy of National permit data and serves them to authorized third users on request.
- 4: Authorized user submits query to UNEP-WCMC’s server which returns reply automatically.

Figure 2: Route B – Case-by-case e-mail-based data provision

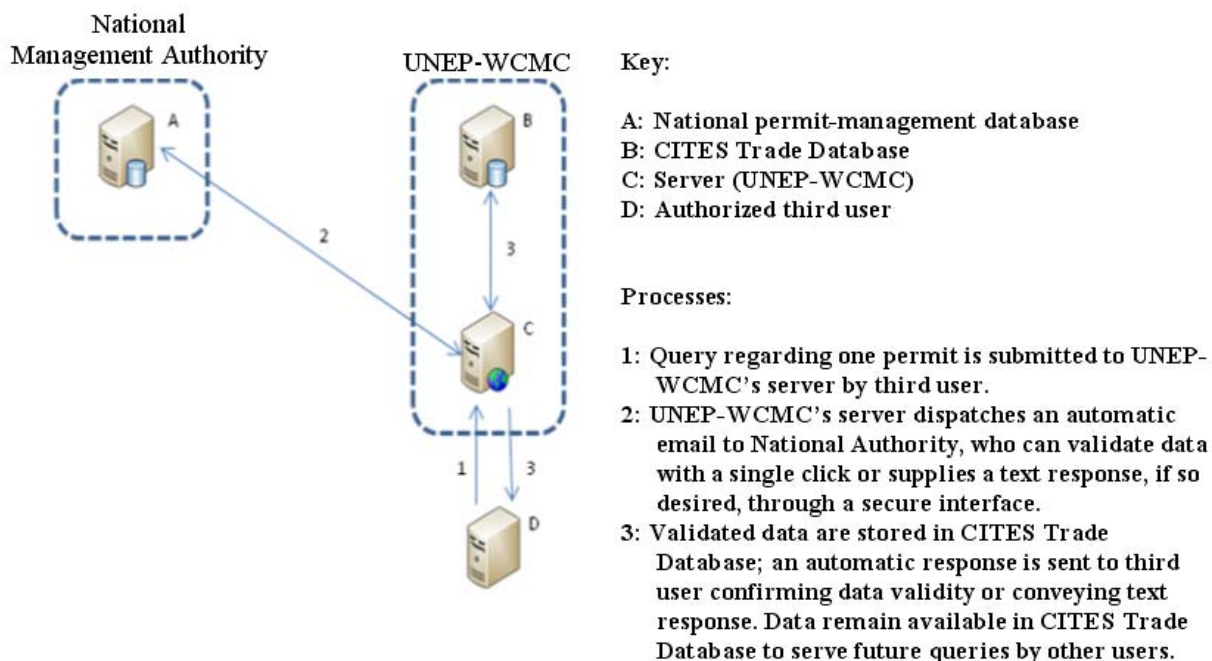
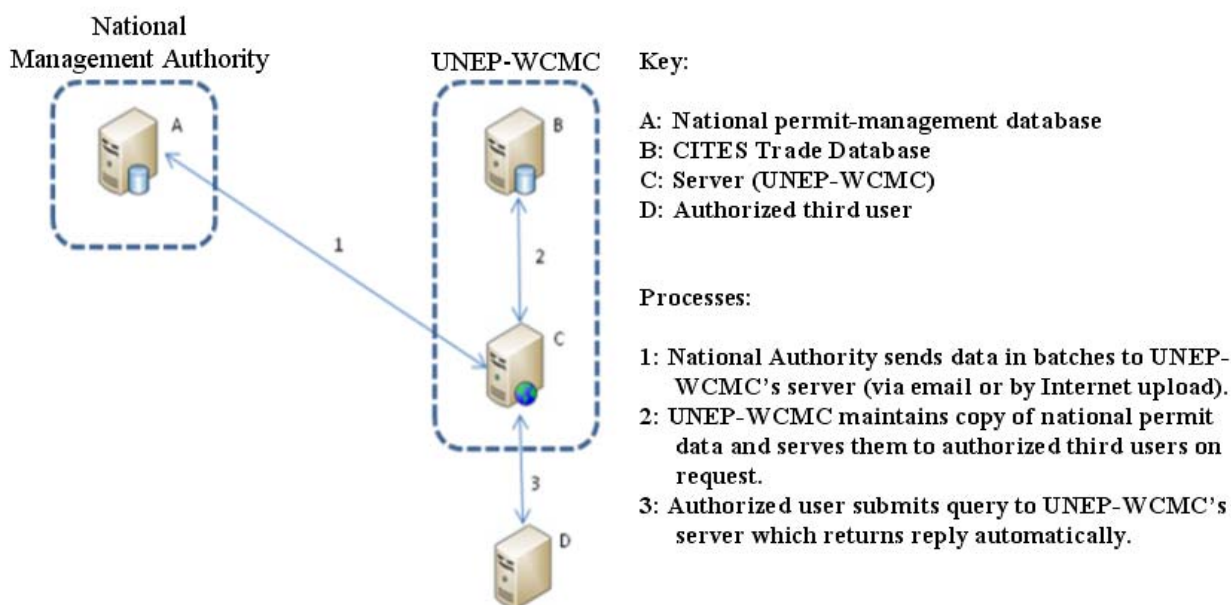


Figure 3: Route C – Batch data provision



The system is being designed primarily with the intention of facilitating the exchange of the same data that are normally provided in annual reports to CITES and which are therefore intended for the public domain. Nonetheless, access will be limited to CITES Management Authorities only, and the system will be password-protected and will observe appropriate security standards consistent with the protection of commercial and personal data transmitted via the Internet.

UNEP-WCMC would be grateful for any comments and suggestions from national Management Authorities and other readers of *CITES World* with regards to the development of any of the exchange routes created by this mechanism. Management

Authorities can also communicate at any point their interest in participating in the pilot phase of this mechanism by sending a note to:

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United Nations Environment Programme
World Conservation Monitoring Centre

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International trade and a *CITES e-permitting standard*

E-permitting, e-sanitary, e-Customs, e-logistics, e-ticketing, e-catalog, e-government, e-visa, e-tendering, e-procurement, e-invoicing, e-business, today everything seems to be prefaced with an 'e'! What then does this 'e' stand for and what could this mean in the context of the development and application of CITES e-permitting recommendations? This article aims to provide some answers to these questions.

These 'e's symbolize a global trend in administrations, organizations and businesses to become increasingly paper-free in order to reduce costs, streamline processes and meet political objectives such as security, control, governance and compliance. This is not a new concept as shown by the use of EDI (Electronic Data Interchange) during the last 30 years. However, in the Internet age of Web services¹ and interactive browser applications, the 'e' has become the 'new' EDI.

In addition to the economic and political objectives behind many of these initiatives, there are also 'green' objectives such as decreasing the environmental footprint, facilitating developing economies to de-

ploy modern technologies, increasing cargo security measures, implementing better risk management, controlling infectious diseases and, in the case of CITES, facilitating legal trade in CITES-listed species.

The concept behind CITES e-permitting is not new as there are already a number of established national Business to Government (B2G) CITES electronic permitting solutions. It must be recognized, however, that most of these solutions are not interoperable (i.e. data are in different formats and cannot be exchanged easily) and they invariably require that data be keyed in manually by the submitter, usually through a Web page.

The CITES Secretariat, in cooperation with the Working Group on the Use of Information Technologies and Electronic Systems, is preparing a toolkit on electronic permitting systems, to assist Parties with the implementation of electronic permitting systems. The toolkit includes, *inter alia*, advice on the use of common information exchange formats, protocols and standards for use with electronic permitting systems; advice on the use of electronic signatures and other electronic security measures; and information on new developments in the use of electronic documents by relevant organizations.

The e-permitting toolkit will introduce a data interchange standard in the form of a common XML (eXtensible Markup Language) schema² definition which can be adopted by all CITES Parties. This will enable the possibility of harmonized Government-to-Government (G2G) exchange of CITES data.

CITES is one regulatory instrument among many other international conventions and regulations that control cross-border trade, e.g. dangerous goods regulations, advanced security measures, embargo controls, weapons, cultural goods, and Customs procedures. These different conventions increasingly offer electronic interfaces for traders to submit the required information to the relevant authorities. The majority of these electronic interfaces are developed independently of one another and are therefore unable to exchange data efficiently. This has a considerable negative impact on traders, because a single consignment of goods will often need to comply with more than one of these currently independent e-systems. Traders, therefore, are required to repeat the manual entry of the same consignment-based trade data numerous times. The result is that new electronic communication systems may not alleviate delays or problems related to processing, and may even create additional burdens.

Recent studies demonstrate that this growth of disparate regulatory e-systems is very inefficient for both the senders and receivers. For example, the Australian Single Data Set (SDS) project found that 22 different agencies collect the name of the exporter. These names are used 212 times on 118 forms, are described in 61 different ways, and are required in 16 different formats ranging from 20 to 300 characters in length. The Australian SDS project has standardized all of those to one data element of 35 characters.

¹ A Web service (also Web Service, Webservice) is defined by the World Wide Web Consortium (W3C) as “a software system designed to support interoperable machine-to-machine interaction over a network”.

² XML schemas express shared vocabularies and allow machines to carry out rules made by people. They provide a means for defining the structure, content and semantics of XML documents.

Each of the current independent e-systems offers benefits to the unique collector of the regulatory trade data. If the migration from paper-based to electronic systems does not offer benefits to the sender, i.e. to the trader, they will likely be hesitant to adopt and invest in such systems.

The effects of regulatory requirements on traders can be illustrated by the export of frozen shrimps from Thailand, which involves 15 agencies and 30 documents. The trade involves 788 data elements, most of which have to be re-typed 30 times (SPECA-ASEAN Capacity Building Workshop on Trade Facilitation, Bangkok April 2007).

Exportation of Frozen Shrimps (Thailand) 15 Parties involved

30 documents & 788 data elements needed to be filled in (~6 e-docs, and most data elements are filled 30 times!)

- | | |
|--|--|
| 1. Proforma Invoice | 16. Export Declaration |
| 2. Purchase Order | 17. Goods Transition Control List |
| 3. Request for Sampling | 18. Request for Port Entry (TKT 308.2) |
| 4. Test Report | 19. Equipment Interchange Receipt |
| 5. Shipping Particulars | 20. Container Loading List |
| 6. Booking Confirmation | 21. Manifest |
| 7. Inland Haulage Booking Form | 22. Outward Container List |
| 8. Inland Haulage Booking Confirmation | 23. Bill of Lading |
| 9. Commercial Invoice | 24. Request for Health Certificate |
| 10. Packing List | 25. Health Certificate |
| 11. Application Form for Import, Export, Pass Animals/Animal Remains Through Thailand (R. 1/1) | 26. Request for C/O |
| 12. Export License (R. 9) | 27. Certificate of Origin |
| 13. Insurance Request Form | 28. Halal Certificate 2 |
| 14. Cover Note | 29. Application for Irrecoverable Documentary Letter of Credit |
| 15. Insurance Policy | 30. Letter of Credit |

SPECA-ASEAN Capacity Building Workshop on Trade Facilitation, Bangkok April 2007

The complexity of documentary requirements and the procedures behind them are costly for traders and have serious repercussions on national external trade statistics. For example, in Germany, it takes three days to prepare documents, and a further three days for transportation and handling, Customs clearance and control, and port/terminal handling. In India, these processes take 27 days (see: <http://www.doingbusiness.com>).

The complexities of international trade are the result of several factors ranging from the delicate balance between sales and transport contracts, to cross-border clearance procedures and the differences among legal requirements. International conventions and regulations, including CITES, are implemented through the processing of regulatory documents at the international, regional, national or even country subdivision levels. Such processing will be facilitated through the adoption of a harmonized data exchange system between Parties.

The cross-border trade conventions and regulations are most commonly implemented independently from one another. In practice, their processes are connected through their documentary reporting requirements which cover many identical elements of trade data. For example, the major cross-border government agencies are the national Customs authorities. It is normal practice that the presentation of all required documents be a requisite for the completion of a Customs procedure. This means that, whenever required, documents like CITES permits or certificates, certificates of origin or phytosanitary certificates are necessary for goods clearance. Any delays due to the lack of timely document presentation may be expensive for the traders and, also, for their governments.

Whilst cross-border processing of primary documents has improved in the last 10 years, allowing such processes to be completed in a more timely fashion, the relative importance of the ‘secondary’ documents and their processing has increased in parallel. Traders have, therefore, a strong interest in decreasing the processing time required for these secondary documents as they may adversely affect the speed of the entire process in a critical and negative manner.

Given the above, the primary challenge facing governments to facilitate trade may be summarized as follows: how can the e-systems from many different governmental agencies [the World Customs Organization (WCO) estimates that there are 5000 governmental agencies worldwide with interest in cross-border data] responsible for or interested in cross-border cargo clearances be harmonized to ensure greater efficiency?

The ‘Single Window’ concept offers a solution.

The United Nations Economic Commission for Europe (UNECE) Recommendation Number 33 (http://www.unece.org/cefact/recommendations/rec33/rec33_trd352e.pdf) calls on governments to establish Single Windows which:

- √ Allow traders to lodge standardized information and documents through a single entry point to fulfil all import, export, and transit-related regulatory requirements;
- √ Allow that each data element to be submitted once electronically;
- √ Allow government agencies to share information on international trade; and

- √ Provide coordinated controls and inspections by the various regulatory authorities.

A Single Window can be public (such as a governmental Single Window) or private (such as a port or airport community system) or a combination through a private and public partnership arrangement.

Single Window systems eliminate duplication of data through the rationalization and harmonization of trade data required across all relevant governmental agencies. They also streamline and align procedures through the integration, where possible, of regulatory processes such as physical inspections, documentary requirements, etc.

Single Window systems offer the benefit of a single interface to government. However, the elimination of data duplication across government agencies requires investments in detailed preparatory harmonization and rationalization. Such investments have time and cost implications, but they should lead to significant improvements in processing time and controls. Many countries have established electronic Customs solutions, and most major trading ports and airports have electronic Single Window-like community systems already in place.

The CITES e-permitting recommendations to be discussed at the 15th meeting of the Conference of the Parties (Doha, March 2010), will be based on and aligned with all relevant global data exchange standards required for implementation of a Single Window environment. If adopted, this alignment of the CITES e-permitting standards with the Single Window environment will benefit CITES traders and Parties by reducing entrance barriers for traders. In addition, the CITES community can recommend the adoption of electronic data submission solutions by liaising with related regulatory agencies to harmonize their respective ‘e’ solutions together (for instance, by aligning e-CERT (electronic Phytosanitary Certificates) and e-CoO (electronic Certificates of Origin) with CITES e-permits and e-certificates).

The CITES e-permitting toolkit will provide detailed information on an e-permitting data model. This model is a subset of the ebXML (Electronic Business using eXtensible Markup Language) compliant UN/CEFACT Buy-Ship-Pay reference data model and it will document the pedigree of standards on which it is based. The draft toolkit will be made available on the CITES website sometime in the summer of 2009.

In summary, the regulatory framework encompassing international trade is becoming increasingly

dependent on ‘e’ solutions. There is now a proliferation of ‘e’ solutions, and the introduction of a CITES e-permitting standard represents an important development for CITES by providing the basis for harmonized electronic data collection and G2G data exchange solutions as well as providing unique opportunities for benefits shared among traders and related government agencies. These Single Window environments for international trade offer significant additional future benefits to CITES Parties and to the CITES trading community. Indeed, the CITES e-permitting toolkit will assist greatly Parties with the implementation of electronic permits and certificates at the national level.

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International Air Transport Association

IATA is an international trade body, created some 60 years ago by a group of airlines. Today, IATA represents some 230 airlines comprising 93% of scheduled international air traffic. The organisation also represents, leads and serves the airline industry in general.

IATA’s aim is to help airlines help themselves by simplifying processes and increasing passenger convenience while reducing costs and improving efficiency. IATA ensures that people and goods can move around the global airline network as easily as if they were on a single airline in a single country. In addition, it provides essential professional support to all industry stakeholders with a wide range of products and expert services, such as publications, training and consulting. IATA’s financial systems also help carriers and the travel industry maximise revenues.



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IATA e-freight: Taking the paper out of air cargo

What is it?

The airfreight supply chain faces increasing challenges:

- √ Customers want faster transit times, lower costs and more reliability
- √ Regulators want more security and demand more information
- √ Slow economic growth means less revenue

Today the air cargo industry still relies on paper-based processes to support the movement of freight. The average airfreight shipment generates up to 30 different paper documents – increasing the cost of airfreight and lengthening transport times.

IATA e-freight is an initiative for the air cargo supply chain, by the air cargo supply chain. It involves carriers, freight forwarders, ground handlers, shippers, customs brokers and Customs authorities. It replaces paper documents with electronic messages, reducing costs, improving transit times, accuracy and the competitiveness of airfreight.

Thirteen documents are already available as electronic messages:

1. Invoice
2. Packing List
3. Certificate of Origin (where legally feasible)
4. House Waybill
5. House Manifest
6. Master Air Waybill
7. Flight Manifest
8. Export Goods Declaration
9. Customs Release Export
10. Export Cargo Declaration
11. Import Cargo Declaration
12. Import Goods Declaration
13. Customs Release Import

Three additional electronic message standards will be developed in 2009: the Shipper’s Letter of Instructions, the Shipper’s Declaration for Dangerous Goods and the Transfer Manifest.

By the end of 2010, 20 documents will be replaced with electronic messages, and 64% of all paper volume will be removed.

Currently, IATA e-freight is live in 19 IATA e-freight locations. The latest updates on live locations, airports and stakeholders (airlines & freight forwarders) can be accessed on the IATA e-freight website: www.iata.org/e-freight.



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Key Benefits

- √ Lower costs
 - Up to US\$4.9 billion in annual net savings for the air cargo supply chain
- √ Faster supply chain transit time
 - Reduced end-to-end cycle time by an average of 24 hours
- √ Greater reliability and accuracy:
 - One-time electronic data entry at point of origin – reduces delays to shipments due to inaccurate or inconsistent data entry
 - No shipment delayed because of missing documentation
- √ Regulatory compliance
 - All international and local regulations relating to the provision of electronic documents and data required by Customs, civil aviation and other regulatory authorities

- √ Increased security
 - Electronic documents are only made available to parties who require them for the completion of a shipment door to door transportation
- √ Better tracking
 - Data entered electronically gives organizations the opportunity to track shipment en route – allowing the real-time status updates
- √ Better for the environment
 - Elimination of more than 7,800 tonnes of paper documents, the equivalent of 80 Boeing 747 freighters.

Working towards international standards

The aim is to define cross-border, multi-modal and cross-industry standards to remove the paper. Each of the paper documents in the scope of IATA e-freight is replaced by one or more standard electronic messages with an “agreed international standard” as defined by IATA, the United Nations Centre for Trade Facilitation and Electronic Business (UN/CEFACT) or the World Customs Organisation (WCO).

All new standard developments are based on UN/CEFACT standards (i.e. Core Component Technical Specification & XML Naming and Design Rules).

In addition, integrated electronic message exchange is a requirement to achieve the benefits of IATA e-freight. IT service providers were consulted via the IATA e-freight Vendor Action Group. They have already started developing technical capabilities in order to facilitate the transfer of electronic messages using these standards. These service providers will also be able, for example, to map electronic messages received by the shippers in one format into the standard format so that shippers using a different format can still join IATA e-freight. Finally, service providers will also make available internet-based solutions for small and medium enterprises to key in or upload relevant information and transmit electronic messages.

The following table lists all paper-documents, which have been or will be replaced by an electronic message with an agreed international standard as defined by IATA, UN/CEFACT or WCO:

	<i>DOCUMENT TYPE</i>	<i>ORGANISATION</i>	<i>STANDARD</i>	<i>MESSAGE</i>
<i>TRADE</i>	1. Invoice	IATA	UN/CEFACT XML	Invoice
	2. Packing List	IATA	UN/CEFACT XML	Packing List
	3. Certificate of Origin	IATA	UN/CEFACT XML	Certificate of Origin
	4. Dangerous Goods	IATA	UN/CEFACT XML	Work In Progress
	5. Letter or Instruction	IATA	UN/CEFACT XML	Work In Progress
<i>TRANSPORT</i>	6. House Waybill	IATA	CIMP & UN/CEFACT XML	FZB
	7. House Manifest	IATA	CIMP & UN/CEFACT XML	FHL
	8. Master Air Waybill	IATA	CIMP & UN/CEFACT XML	FWB
	Status Update	IATA	CIMP	FSU
	9. Flight Manifest	IATA	CIMP	FFM
10. Transfer Manifest	IATA	CIMP	Work In Progress	
<i>CUSTOMS</i>	11. Export Goods Declaration	WCO	EDIFACT	WCODEC
	12. Customs Release Export	WCO	EDIFACT	WCORES
	13. Export Cargo Declaration	WCO	EDIFACT	WCOCAR
	14. Import Cargo Declaration	WCO	EDIFACT	WCOCAR
	15. Import Goods Declaration	WCO	EDIFACT	WCODEC
	16. Customs Release Import	WCO	EDIFACT	WCORES

IATA & CITES Cooperation

IATA wants to ensure that its e-freight standards meet shippers' requirements, so that they can benefit from cost and time savings offered by IATA e-freight. The scope of IATA e-freight includes both general and special cargo, such as dangerous goods, live animals, and perishables.

IATA and CITES met recently to exchange information on IATA e-freight and the CITES initiative to develop a CITES permit in electronic based on UN/CEFACT standards. IATA is very interested in the results of CITES investigations with the relevant authorities into the possibility of accepting CITES e-permits, in lieu of paper, to accompany the shipment of a particular species. IATA and CITES agreed to further discuss on this opportunity which may result in including the CITES permit in electronic format in the IATA e-freight scope for 2010.

Should you have any comments or question, please contact Mr. Steve Smith, Project Director IATA e-freight (smiths@iata.org)

The United Nations Centre for Trade Facilitation and Electronic Business (UN/CEFACT) and electronic documents

The United Nations Economic Commission for Europe (UNECE) develops standards and best practice for international trade. To carry out this work, UNECE has set up the United Nations Centre for Trade Facilitation and Electronic Business (UN/CEFACT). The policy directions and programme of work of UN/CEFACT are developed by its intergovernmental Plenary, which meets once a year in Geneva, Switzerland and reports to the UNECE structure.

UN/CEFACT has as its objective to develop and promote simple, transparent and effective processes for global commerce (including related government-

to-business and government-to-government processes). To achieve this objective, UN/CEFACT supports activities dedicated to improving the ability of business, trade and administrative organizations, from developed, developing and transitional economies, to exchange products and relevant services effectively. The principal focus is on facilitating national and international transactions, through the simplification and harmonization of processes, procedures and information flows.

From the time that goods are ordered until when they are paid for, the buyer and seller are confronted with processes, procedures and associated information exchanges that increase costs. Whether they are created by official authorities, such as Customs and sanitary authorities, or by private-sector actors, such as insurance companies and banks, these additional costs can negatively affect an entire economy's competitiveness and attractiveness to traders and investors.

For example, goods move across borders only as fast as the "paper" information that precedes them. The numerous official procedures and requirements that exporters and importers have to face add time and cost to trade transactions, and often deter business, especially small and medium-sized business, from entering international markets. For landlocked countries and countries distant from major markets, complex and inefficient procedures can be a particular constraint, creating many additional costs and dramatically reducing the competitiveness of their goods on international markets.

Trade facilitation, as defined by UN/CEFACT, attempts to address such constraints throughout the "buy-ship-pay" cycle and make trade as easy and efficient as possible for both business and government. It reduces costs, enhances competitiveness and contributes to the growth of global commerce.

Today UN/CEFACT sees the key to achieving real benefits from trade facilitation as being a strategy that first works towards creating more efficient and better designed procedures, and then towards facilitating these data flows with information technology.

UN/CEFACT also helps countries, particularly those with developing or transition economies, to implement its standards and recommendations. Examples of this support include the development and promotion of *Recommendations for Single Windows for exports and imports*, and the *Trade Facilitation Implementation Guide*.

Below are some brief descriptions of areas where important new work is expected to be completed or started by UN/CEFACT during the near future.

Trade Facilitation Implementation Guide and associated training

The Trade Facilitation Implementation Guide will be a step-by-step guide for developing and transition economy countries on how to implement trade facilitation. The first draft of the guide will be completed by mid 2009.

Recommendations for Single Windows

A new Recommendation on data simplification and harmonization, (Rec 34), is being developed in response to requests from Governments to have more information on how to implement UNECE Recommendation 33 on Single Windows for export and import clearance and, in particular, on what standards to implement in a Single Window. Another related Recommendation (35) on legal issues associated with Single Windows is also being developed.

A complete Buy-Ship-Pay model and updated Core Components Library

Important advances in web technology have now reached the stage where it is possible for computers to take advantage of a broad-based "common language" that can be shared across different data exchange standards and methods, opening up major new horizons for improved efficiency. UN/CEFACT is uniquely positioned to provide the focal point for developing this common language based on its long experience in working with government and a wide range of industry groups, its global remit and its extensive libraries of data definitions and codes (developed as a result of work on UN/EDIFACT).

This common language concept is being developed through the Buy-Ship-Pay model and the CCL. In brief, the Buy-Ship-Pay model (which consists of many linked models of individual processes) identifies the data to be exchanged. Work is done to ensure that the data definitions are harmonized across the different processes, and entries are then developed for the CCL. The data definitions found in the CCL can then be used as the basis of aligned paper documents, Extensible Markup Language (XML) schemas or UN/EDIFACT messages, and in the future, other formats as well.

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A useful glossary of terms and acronyms

B2B	Business-to-Business refers to the concept that businesses can use Web technologies to exchange information and do business with each other.
B2G	Business-to-Government refers to the concept that businesses and government agencies can use Web technologies to exchange information and do business with each other.
CCL	Core Component Library is composed of semantic building blocks that represent the general types of business data in use today.
E-commerce (or EC)	Electronic commerce is the buying and selling of goods and services over the Internet, especially through the World Wide Web (WWW). E-commerce and e-business, a newer term, are often used interchangeably.
ebXML	Electronic Business using eXtensible Markup Language is a modular suite of specifications enabling enterprises in any geographical location to conduct business over the Internet. It enables the global use of electronic business information in an interoperable, secure, and consistent manner by all trading partners.
eCERT	Electronic sanitary and phytosanitary certificate
G2B	Government-to-Business (G2B), similar to B2G, refers to the concept that government and business agencies can use Web technologies to exchange information and do business with each other.
G2G	Government-to-Government refers to the concept that governments can use Web technologies to exchange information and transact with each other.
IATA	International Air Transport Association
Interoperability	The ability of two or more systems or components to exchange information and to use the information that has been exchanged.
ISO	International Organization for Standardization
Protocol	A set of formal rules describing how to transmit data, especially across a network.
Single Window concept	A facility that allows parties involved in trade and transport to lodge standardized information and documents through a single entry point to fulfil all import, export, and transit-related regulatory requirements. If information is electronic, then data needs only be submitted once.
Standards	Definitions or formats, or an agreed-upon set of specifications, that have been approved by a recognized standards organization.
UN/CEFACT	The United Nations, through its Centre for Trade Facilitation and Electronic Business, supports activities dedicated to improving the ability of business, trade and administrative organizations, from developed, developing and transitional economies, to exchange products and relevant services effectively.
UN/EDIFACT	The United Nations Electronic Data Interchange for Administration, Commerce and Transport (UN/EDIFACT) is approved as an ISO standard for the electronic interchange of structured trade data among computerized information systems. It comprises internationally agreed standards, directories and guidelines.
UNECE	United Nations Economic Commission for Europe
UNLK	The United Nations Layout Key for Trade Documents serves as a master layout design from which other trade documents can be derived. It organizes coded information (address, buyer, seller, documentation requirements for certain products, etc.) in a box format in fixed locations on a document. The UNLK can be used for creating international and national layout keys and standard forms used in electronic data processing applications.
Web services	Web services are defined by the World Wide Web Consortium (W3C) as software systems designed to support interoperable machine-to-machine interaction over a network.
WCO	World Customs Organization
XML	eXtensible Markup Language designates a universal commonly used data format for publishing and exchanging structured documents over the Internet.

Source: CITES Secretariat

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Currently, the Buy-Ship-Pay Model and the CCL are at a critical stage of development where intensive work is taking place to get the Library's content up to a critical mass, including the Core Components. This requires a set of core components that is large enough to allow organizations to use CCL data across the entire buy-ship-pay process – with a minimal need to request additions or modifications.

In conclusion, UN/CEFACT is uniquely positioned to advise CITES Parties on the adoption of e-business

standards in their implementation of projects related to electronic CITES permits and certificates. In this manner, such projects will be aligned with new developments in electronic business and harmonized with international standards.

Questions on UNECE's work on trade facilitation should be directed to:

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United Nations Economic Commission for Europe (UNECE)
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Introduction to CITES for Customs *on CD-ROM*

In May 2004, the Secretariat informed the Parties of the launching of the *Introduction to CITES for Customs* on CD-ROM. The Secretariat is pleased to announce that version 2 of the course is available. The course has been updated to include new materials and to take account of Decisions and Resolutions adopted at the 14th meeting of the Conference of the Parties (The Hague, 2007). The Secretariat is very grateful to the Canada order Services Agency for permitting it to adapt their product for CITES training and to the Enforcement Branch of the Canadian Wildlife Service for its help in the preparation of the original version of the course in 2004. The Secretariat encourages Management Authorities to make this CD-ROM available to: Customs officers involved in dealing with CITES specimens and CITES documentation, as well as other government departments involved in the import and export of CITES specimens. The CD-ROM contains a mechanism for providing feedback to a specific email address, where the Secretariat hopes to receive comments from the users on how to improve this product. Parties may reproduce this

CD-ROM for their own use if the source is fully acknowledged. However, it is not intended for commercial use. Copies of this CD-ROM are provided on request from the Secretariat.



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